

contacts [and the assembly includes resilient means for permitting movement of said terminals toward said chip.]

2. An assembly as claimed in claim 1 [further characterized in that said resilient means include] wherein said sheetlike element includes a compliant layer disposed between said terminals and said chip [so that said compliant layer will be compressed upon movement of said terminals toward said chip.]

3. A chip assembly as claimed in claim 2 wherein [further characterized in that] said compliant layer is formed from an elastomeric material.

4. A chip assembly as claimed in claim 2 wherein [further characterized in that] said compliant layer includes masses of a low modulus material and holes interspersed with said masses of low modulus material, said masses of said low modulus material being aligned with said terminals, said holes in said compliant layer being out of alignment with said terminals.

5. A chip assembly as claimed in claim 1 or claim 2 or Claim 3 or claim 4 wherein [further characterized in that] said chip has a front surface, said contacts are disposed on said front surface and said sheetlike element and said terminals overlie said front surface of said chip.

6. A chip assembly as claimed in claim 1 or claim 2 or claim 3 or claim 4 wherein [further characterized in that] said chip has oppositely-facing front and rear surfaces, said contacts are disposed on said front surface, and said sheetlike element and said terminals overlie said rear surface of said chip.

Cancel Claims 7-14 inclusive.

Amend claims 15 - 17, 20 and 21 as follows:

15. (Amended) A component for assembly to a semiconductor chip comprising [including] a flexible ~~sheetlike element~~ having terminals thereon, said sheetlike element including a compliant layer underlying said terminals.

16. (Amended) A component as claimed in claim 15 wherein [further characterized in that] said compliant layer includes masses of a low modulus

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material and holes interspersed with said masses of low modulus material [, said masses of said low modulus material being aligned with said terminals, said holes in said compliant layer being out of alignment with said terminals].

17. (Amended) A component as claimed in claim 16 wherein [further characterized in that] said sheetlike element includes a thin, flexible top layer formed from a material selected from the group consisting of thermoset and thermoplastic polymers overlying said compliant layer.

18. (Amended) A component for use in semiconductor chip assemblies, the component including a sheetlike interposer having outboard edges, a plurality of terminals disposed on said interposer and a plurality of prefabricated leads connected to said terminals and having contact portions adjacent said outboard edges, said prefabricated leads extending outwardly from said terminals to said contact portions, said prefabricated leads being flexible, the contact portion of each said prefabricated lead being movable with respect to the terminal connected to such lead [, characterized by at least one securement element integral with said interposer, each said securement element having an inboard edge extending generally parallel to one of said outboard edges of said interposer so that such parallel edges define an elongated slot, each such prefabricated lead extending to the vicinity of one said slot].

19. (Amended) A component as claimed in claim ~~18~~ ⁸ [20] further comprising at least one securement element integral with said interposer, each said securement element having an inboard edge extending generally parallel to one of said outboard edges of said interposer so that such parallel edges define an elongated slot, wherein the contact portion of each said prefabricated lead extends across said slot.

Cancel claims 22-35.

Amend claims 61 and 63 as follows:

~~9~~ 61. (Amended) A module comprising:

a substrate having a top surface, contact pads on the top surface, external connections and conductors interconnecting the contact pads with one another and with said external connections in a preselected pattern of interconnection;

a plurality of semiconductor chips, each having a plurality of surfaces and having contacts on at least one of such surfaces;

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a flexible sheetlike element having terminals thereon associated with each said chip, the terminals of each said sheetlike element being electrically connected to the contacts of the associated chip, the sheetlike element and at least some of the terminals thereon overlying one said surface of the associated chip, the terminals being moveable with respect to the chip to compensate for thermal expansion, [the assembly further including resilient means associated with] each said sheetlike element including a compliant layer disposed between the terminals [towards] and the associated chip, said terminals being connected to said contact pads on said substrate.

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63. (Amended) A module as claimed in claim 62 wherein said sheetlike element includes a thin, flexible, [toplayer] top layer and wherein said [resilient means includes a] complaint layer is disposed between said top layer and said front surface of each said chip.

Cancel claims 56-60 inclusive.

Insert New Claims 66-80 as follows:

8 ~~66~~ 66. A component as claimed in claim 20, wherein the contact portion of each prefabricated lead extends beyond an outboard edge of the interposer.

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15 ~~67~~ 67. A semiconductor chip assembly comprising a semiconductor chip having a front surface and having contacts on said front surface and a flexible sheetlike element having terminals thereon, and flexible leads electrically connecting said terminals to said contacts, wherein said sheetlike element and at

least some of said terminals overlie said front surface of said chip, said terminals are movable with respect to said chip, said flexible leads and said flexible sheetlike element being adapted to deform to accommodate movement of said terminals with respect to said contacts, said sheetlike element including a layer of ~~a compressible~~ ^{compliant} material disposed between said terminals and said chip front surface.

16. 68. A semiconductor chip assembly comprising a semiconductor chip having a front surface and having contacts on said front surface, a support structure juxtaposed with said chip and having a top surface disposed alongside said front surface of said chip and a flexible sheetlike element having terminals thereon, and flexible leads electrically connecting said terminals to said contacts, wherein at least a part of said sheetlike element and at least some of said terminals overlie said support structure, said terminals are movable with respect to said chip, said flexible leads and said flexible sheetlike element being adapted to deform to accommodate movement of said terminals with respect to said contacts, said sheetlike element including a layer of a ~~compressible~~ ^{compliant} material disposed between said terminals and said top surface of said support structure.

17. 69. A semiconductor chip assembly comprising:

- (a) a semiconductor chip having a plurality of surfaces and having contacts on at least one said surface;
- (b) a plurality of terminals, at least some of said terminals overlying one said surface of said chip;
- (c) a layer of a ~~compressible~~ ^{compliant} material disposed between said terminals and said chip and supporting at least some of said terminals above said one said surface of said chip; and
- (d) flexible leads interconnecting said terminals with said contacts on said chip so that said terminals are movable with respect to said contacts.

18. 70. A semiconductor chip assembly comprising:

(a) a semiconductor chip having a front surface and having contacts on said front surface;

(b) a plurality of terminals, at least some of said terminals overlying said front surface of said chip;

(c) a layer of a ^{compliant} compressible material disposed between said terminals and said chip and supporting at least some of said terminals above said front surface; and

(d) flexible leads interconnecting said terminals with said contacts on said chip so that said terminals are movable with respect to said contacts.

71. A semiconductor chip assembly comprising:

(a) a semiconductor chip having contacts;

(b) a support structure juxtaposed with the chip;

(c) a layer of a compressible material disposed between said terminals and said support structure and supporting at least some of said terminals above said support structure; and

(d) flexible leads interconnecting said terminals with said contacts of said chip so that said terminals are movable with respect to said contacts.

72. A semiconductor chip assembly as claimed in claim 68 or claim 70 wherein said support structure includes a unitary rectangular ring surrounding the chip.

18 2173. A semiconductor chip assembly as claimed in claim 69 or claim 70 or claim 71 wherein said ^{compliant} compressible material is an elastomeric material.

19 2274. A semiconductor chip assembly as claimed in claim 1 further comprising a ^{substrate} having contact pads thereon, said sheetlike element being disposed between said chip and said substrate, each said terminal being connected to one said contact pad of said substrate.